100 Area Excavation Treatability Test Plan

In an effort to keep the public informed and involved with the Hanford cleanup, Washington State Department of Ecology (Ecology), U.S. Environmental Protection Agency (EPA), and U.S. Department of Energy (USDOE) prepared this focus sheet on the ***100 Area Excavation Treatability Test Plan. The agencies want your comments on this treatability test because it has the potential to clean up the test site. The public comment period begins June 7 and ends July 6, 1993.*** *Ecology has lead regulatory oversight for this project. All comments will be considered before the test plan is finalized and approved by Ecology. Please submit written comments to:*

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Background

In order to clean up Hanford in an efficient manner, Ecology, EPA, and USDOE, are considering using the "observational approach" as a removal technique for several of the 100 Area operable units. The idea behind the observational approach is that a cleanup action can be performed within an operable unit based on limited field investigation and/or characterization previously done in another, similar area. The specific site characterization will then be performed during the removal of the waste.

To support this type of cleanup, real time analytical capabilities must be developed. In other words, for the observational approach to be cost effective the agencies must develop field screening tools capable of giving immediate feedback to cleanup crews. The purpose of the 100 Area Excavation Treatability Test is to gain adequate cleanup design knowledge to effectively support the use of the observational approach. This type of cleanup action can greatly cut down on administrative and analytical costs, as well as monies needed for the actual cleanup work.

The test will be conducted on the 116-F4 "pluto" crib. The 116-F4 pluto crib was in operation from 1950 - 1952, and is located in the 100-FR-1 operable unit. The crib received contaminated water from the F Reactor.

Pluto cribs were buried, generally rock-filled structures. The typical crib was an open-bottomed underground box made of wood. As contaminated water passed through the soil, some radioisotopes stayed in the crib and soil column. The wood box gave support to the soil column and the rocks allowed the water to drain.

Early in 1993, field characterizations were conducted in the waste units of the 100-FR operable unit. As part of that investigation, a borehole was drilled in the 116-F4 pluto crib. Analysis of the samples collected revealed an extensive number of radioactive contaminants, including cesium 137 and europium 152. The current analytical results combined with historical process knowledge indicate that 116-F4 would be an ideal site for performing the Excavation Treatability Test.

Excavation Treatability Test Purpose

The purpose of the test is to define components of remedial action/remedial design (cleanup): excavating soil, testing field instrumentation, and dust control suppression.

Field instrumentation testing will be done to establish real-time capability for sampling analysis, which will reduce laboratory costs and turn-around times. Having immediate analytical results will allow efficient excavation activities to occur.

Soil removed from the 100 Area may need some form of pretreatment before disposal can occur. Selection of the best soil treatment technology (e.g. soil washing) is essential for potentially reducing the amount of waste to be disposed. At this point, the agencies are looking at vitrification of the residual contaminated material after soil washing is performed. If treatment such as soil washing proves ineffective, then stabilization/solidification technologies will be tested as part of the treatment phase of the test.

Potential Site Remediation

About 500 cubic yards of soil will be excavated to meet the goals of the Excavation Treatability Test. This may result in the removal of all of the contaminated soil associated with the 116-F4 pluto crib, constituting final cleanup of the crib. Because of this, the public is invited to comment on the proposed test plan. Some or all excavated soil will be treated before disposal.

Milestones

M-15-05B is the milestone assigned to the 100 Area Excavation Treatability Test. November 30, 1993, is the completion date for the milestone. To complete Milestone M-15-05B, all excavation field activities must be finished. EPA and Ecology will require an additional milestone, or milestones, which will include treatment of the excavated soil.

How You Get Involved?

All public comments received during the public comment period will be considered before issuing the test plan. Individuals who comment on the proposed plan will receive responses to comments from Ecology.

You may review a copy of the 100 Area Excavation Treatability Test Plan at the Hanford Public Information Repositories., or request a copy by calling 1-800-3212008.

For more information, call Hanford Cleanup, toll free 1-800-321-2008.

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Hanford Public Information Repositories

SEATTLE
University of Washington
Suzzallo Library
Government Publication Room
Mail Stop FM-25
Seattle, WA 98195
(206) 543-4664
Attn: Eleanor Chase

RICHLAND
Public Reading Room
Washington State University/Tri-Cities
100 Sprout Road, Room 130
Richland, WA 99352
(509) 376-8583
Attn: Terri Traub

SPOKANE
Gonzaga University
Foley Center
E. 502 Boone
Spokane, WA 99258
(509) 328-4220, ext. 3125

PORTLAND
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